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OBSERVATIONS

ON THE

Walcheren Diseases,

WHICH AFFECTED THE

BRITISH SOLDIERS,

IN THE EXPEDITION TO THE

Scheldt,

COMMANDED BY

Lt. Gen. The Earl of Chatham.

BY G. P. DAWSON,

Member of the Royal College of Surgeons in London.

"The fiends of Walch'ren's swampy coast,
"Breathe venom'd fate among our host:
"In vain we fight! the subtle charm,
"Unnerves the warrior's lifted arm;
"Cold damps suppress the struggling breath,
"And chill the dauntless heart in death."

Battely, Printer, Corn-Hill, Ipswich.

1810

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TO

BRYAN COOKE, Esq. M. P.

SIR,

I take the liberty of dedicating this work to you, and I indulge an anxious hope you will accept it as an assurance of my high respect. I shall be justly proud if it's pages receive your approbation, but I dare not flatter myself they will be so distinguished.

I have the honour to be,

SIR,

Your most obedient

Humble Servant,

GEORGE PEARSON DAWSON.

PREFACE.

The man who writes on a subject so interesting and popular as I have chosen may be justly asked if his opportunities have qualified him for so arduous an undertaking. Whether my opportunities have qualified me the public must determine. For more than three months my scene of practice has been a very large General Military Hospital, appropriated for the reception of Soldiers labouring under the diseases I now attempt to describe and explain. I write from personal observation only. I speak of nothing but what I have seen.

ERRATA.

Page 2, line 2, *for* "arsenal" *read* "arsenals"
5, line 9, *for* "was" *read* "is"
12, line 17, *for* "addmitted" *read* "admitted"
14, line 19, *for* "overcome" *read* "overcame"
15, line 8, *for* "fœcul" *read* "fœcal"
16, line 17, *for* "descant the bad practice" *read* "des canton"
13, line 1, *for* "extrancous" *read* "extraneous"
37, line 20, *for* "slishtest" *read* "slightest"
84, line 4s *for* "simplicitly" *read* "simplicity"
132, line 12, *for* "case" *read* "care"

CHAPTER, I.

Of the Expedition, and the Causes Of Disease.

THE Expedition, which gave rise to the diseases I have to describe, consisted of forty thousand soldiers, and was commanded by Lieutenant General, The Earl of Chatham, and to which was attached a large Naval force under the command of Rear Admiral Sir Richard Strachan. It sailed from the Downs early in the morning of the 28th. of July, 1809, and its destination was to the Scheldt. The Army landed on the Bree-sand, about a mile to the westward of Fort der Haak, without opposition. The object of this Expedition, according

to popular report, was to destroy the Enemy's fleet at Antwerp, Fort Lillo, and the Arsenal, and cause a diversion on the Continent in favour of Austria. But the Enemy's fleet was not attacked, the Army never reached Antwerp, and no diversion on the Continent was effected for peace had been concluded between France and Austria. Fatality marked the progress and termination of this unfortunate and ill judged Expedition. It not only failed in accomplishing the objects in contemplation, but severe disease affected thousands of the soldiers, and the greatest part of them returned to England the wreck of what they once were, exhibiting dreadful proofs of misery, disease, and death. That part of the Army which did not return remained to garrison the Island of Walcheren, which was taken possession of soon after the Expedition landed, an Island of all others the most unhealthy, where every year the mortality almost exceeds credence. It is said that so un-

wholesome has the Island been considered by the Dutch, that when Troops are ordered from Haerlem, or Amsterdam, to garrison it, they take leave of their friends with the same melancholy forebodings, as if they were going to the most unhealthy Island in the West Indies. And of one Dutch Regiment which arrived in Walcheren, eight hundred strong, about three years ago, there remained only eighty-five at the time our Expedition made its descent. The soldiers stationed there suffered most severely from disease, immense numbers died, and thousands were, at different periods, sent to England to sink into an early grave, or recover with a broken constitution.

The Island of Walcheren was retained by the British Troops for about four months, and then abandoned altogether, without any earthly good having been derived from it, without its

having been productive of any thing but mortification, misery and disgrace. Such was the result of an Expedition much larger than ever before sailed from a British Shore.

It will ever be a matter of national regret, and a subject of extreme pain for humanity, that an Expedition so formidable in its appearance, and which might have proved so essentially useful should have been so disastrous in its effects, and so calamitous in its consequences. The pen of the historian will not fail to record it in the pages of history; every circumstance, and every measure, either directly or indirectly connected with it, will be handed down to posterity, and when prejudice shall be no more, party spirit forgotten, all evil passions subsided, and imbecility laid within the silent grave, after ages will read the narrative with mingled sensations of astonishment and pity.

The Country, to which the Expedition was

sent, is damp, foggy, rainy, and calculated to produce severe and fatal disease. Its general unhealthiness, and disposition to occasion Low Fevers, and Agues, is almost proverbial. It is situated very low, is excessively muddy, often inundated with water, and stagnant water gives rise to *Marsh Miasmata*, and other noxious exhalations. The water, which the soldiers drank, was very bad, dirty, and contains numerous insects. Numbers of them, in consequence of drinking it, were affected with sickness, and vomiting, and actually vomited several large worms. The soldiers were much exposed to wet, and night air, some of them often slept upon the damp ground, and it is an undoubted fact that many thousands were up to the middle in water the whole of one night. Causes so obviously deleterious as these, combined with other incidental, and hidden ones, might well occasion severe and extensive disease.

It would appear from enquiry that stimulants, such as Brandy, Rum, or Gin, had great power in guarding the troops from the attacks of disease. For it is well known that the Officers who had greater means of procuring such stimulants, and did actually to my certain knowledge drink them, were considerably more healthy than the Soldiers making every due allowance for the difference of numbers. This indeed may be easily believed. In a country such as Walcheren is known to be, where foggy and very rainy weather prevail for a time, and is succeeded by great heat, where the soil is wet and muddy, and stagnant water gives rise to noxious exhalations, stimulants would have the power, if any thing had, to prevent these circumstances doing injury to the constitution.

It will not be expected from me that I should enter further than I have done into the causes which produced such mortal disease amongst

the British Soldiers, because it will be doubted by none but the country is universally considered unhealthy in the extreme, and did to the regret of humanity occasion disease which for its extensiveness, severity, and mortality may be pronounced unprecedented, and lamentable.

CHAPTER, II.

Of the Walcheren Continued Fever.

I SHALL not scruple to affirm that debility laid the foundation for almost all the diseases which affected the British Troops, and in the majority of cases was the leading feature of them.

The diseases were principally of a febrile nature.

The Fevers were of the Continued, and Intermittent kind, and in every case there was an unaccountable disposition in the one to degenerate into the other, and it was a circumstance which very frequently took place. I hope my reader will bear this important fact in his recollection.

Authors, whether from a love of truth, or a desire to indulge in fanciful, and unnecessary distinctions is doubtful, have divided fevers into a number of classes, but they appear to have done wrong, and have misled when they should have enlightened. Fevers may, and do, vary in their stages, their symptoms may occasionally differ, there sometimes may be an excess, and sometimes a want of action, but the disease may be fundamentally the same. Few diseases are the same in every respect, it is not in the nature of things it should be so, peculiarity of constitution, the state of mind, and many other existing circumstances conspire to make the same disease present different symptoms. Ask any man who has an idea of the nature of the human mind, and to whom the Animal Economy is known, if local circumstances are not able to produce local effects, and whether the mind in sickness does not exercise considerable influence

on the body according to its state and disposition. The man whose mind was agonized by embittered recollection, whose body was debilitated by its pernicious effects, would, if attacked with fever, exhibit very different symptoms to what another man would do, affected with the same fever, whose mind was vigorous and chearful, whose habit was full and plethoric, and whose constitution was previously in a high state of health.

I wish it to be understood that in all the Walcheren fevers, which came under my observation, debility was a leading symptom, and always one of long continuance.

The fever was decidedly not of a contagious nature.

I never heard of a single instance of any person contracting it who had not been exposed to those causes which are supposed to have pro-

duced it. It was merely a fever of the low kind, where debility, and torpor prevailed in a very considerable degree, and where there was great inactivity, and derangement of the Intestinal Canal, and sometimes disease of the viscera. The general symptoms of the Walcheren fever were a quick and small pulse, the tongue brown and furred, and occasionally a dark red crust upon it, the mouth excessively dry, insatiable thirst, acute pain of the head, irritability of the stomach, an inactive state of the intestines, pain and fulness of the Abdomen, restlessness, rigors, dryness, and heat of skin, considerable lassitude and prostration of strength, delirium, and a bilious tinge of the face and surface of the body; in the evening an exacerbation generally took place; the symptoms were all increased, the skin burning hot, and the pulse remarkably quick. There was a great quickness in the patient in replying to any question

which might be asked him, and a never failing complaint of his being unable to sleep. But it is right to remark that in many cases symptoms varied, and would make their appearance under such various circumstances, and at such irregular periods as to render description difficult. Some patients in fever would complain of excruciating pain all over the body, others would express themselves free from pain, many would have sickness, and irritability of the stomach, while an equal number not so affected would have pain of the breast, and agonizing pain of the head, and so on in endless progression. To exemplify the singular and unexpected manner in which fever would make its appearance I will mention a case of this nature. A Soldier, seemingly in good health, was admitted into the Hospital for a bowel complaint, which was removed in a few hours, next morning he was seized with a severe fit of Ague, and the succeeding day was attacked with violent fever and

delirium. Under such perplexing circumstances, where in numerous cases there was some differance or other, and occasionally a material one, it is not easy to give an account of every symptom methodically. Before I proceed further I wish particularly to impress upon the mind of my readers that under no stages of the fever was bleeding ever indicated or admissible. Every circumstance, and every symptom not only imperiously forbid its adoption but manifestly shewed, it would be highly dangerous. Constitutions debilitated by various noxious causes, and affected with a low fever, in which a want of action, and disposition to sink were prominent features, could not be supposed able to bear bleeding with impunity. To bleed was to abstract vital fluid. I have seen patients bled in the Walcheren fever, I have bled some myself at the request of others, and I have only done so to have seen them sink and die. It is worthy of notice that in those who were bled there was

in the vein a great disposition to bleed, and to prevent it required considerable time and great precaution. This originated entirely from debility; the vessels had lost their contractile power. In the treatment of the fever, where circumstances did not forbid it, an Emetic composed of Powder of Ipecacuanha and Tartarized Antimony was administered, and was generally serviceable; where there existed inactivity of the Intestinal Canal, which was I believe always—four or five grains of Calomel, and Jalap, were given every hour, or every two hours. The success of this practice seldom varied. By the powerful action which it excited in the intestines it greatly contributed to the diminution of febrile action, and by removing from them a quantity of vitiated fœces, which had remained there a considerable time, it not only gave to them an healthy action, but finally overcame one of the principal causes which had occasioned fever. Fœces long retained in the intestines become vi-

tiated, impair and obstruct their natural functions, and by being absorbed into the system are productive of disease. Thus it was with the British Soldiers. From circumstances already noticed by me, and which I shall enlarge upon as I proceed, the intestines had become torpid in their powers, and the consequence was a long accumulation of fecal matter, and in various instances, visceral disease. To this, fever succeeded. In the cure of this fever one grand indication was obvious, which was to relieve the intestines of a load of offensive matter, and restore them to their natural state. In the accomplishment of this, Calomel, and drastic purges, were eminently successful.

The reader on whose mind the remarks which I have already, and shall hereafter, make on the debility which the soldiers laboured under, [have] made an impression, may perhaps, question how far it was prudent to exhibit Calomel in

such large and oft repeated doses. But such an idea would be an erroneous one, it would convincingly prove to me that he deluded himself by mistaken theories, and had not a clear understanding of that disease on which I am now writing.

The error laid, in giving *too* little and not *too* much Calomel. In the fever I have given thirty two grains of Calomel in eight hours, and I have done this with obvious advantage, I have completely cleansed the intestines, and thereby subdued febrile action. I have likewise exhibited twelve grains in as many hours, not only without benefit but with a degree of injury, which I shall mention. I am not writing a book in which my design is to state my own good practice only, and to descant on the bad practice of other men. No—when I do this I shall lose my own esteem. Those who read my pages will find that truth and liberality have

been my chief object, and that on every occasion I have pointed out my own errors with greater freedom than I would venture to exercise towards others. Why were small doses of Calomel productive of injury? I have said the system was greatly debilitated, the bowels exceedingly torpid, and loaded with vitiated matter. To a mind enlightened by accurate notions of health, and disease, these facts will be a satisfactory reply. By giving Calomel in large doses, conjoined with other purgatives, it always had the desired effect; but when administered in what would seem a more cautious way, it not only failed to evacuate the intestines, but produced, what?—*Salivation!* This is easily accounted for by recollecting the great debility which existed, and that intestines long torpid require vigorous means.

A medicine which is intended to exercise a powerful effect by removing from a diseased

system an extrancous and noxious cause can hardly be exhibited in too large a quantity providing he who gives it has judgment. It is a truth which cannot be too strongly reprobated, or sufficiently held up to public contempt, that active remedies, which if properly administered would be successful, often fail from the cautious and timid manner in which they are employed.

Before dismissing the subject of Calomel, and purgatives, in the Walcheren fever, I must repeat that they were of the greatest service, and one of the principal remedies, and I have to observe, it was frequently necessary to employ them at various times during the progress of the disease in consequence of the very torpid and deranged state of the intestinal canal, and other viscera.

My readers will I trust do me the justice to remember that every part of the treatment which

I may mention was had recourse to as symptoms indicated its propriety. It is my business to state the general treatment in the Walcheren fever, presuming it will be understood under what circumstances it was, or was not adopted. Having given an Emetic in the first instance, and completely cleansed the intestines by Calomel in the second, the next plan pursued was to bring a general moisture on the surface of the body by means of Sudorifics, and Saline Medicines. And when a more than ordinary heat of skin prevailed the cold affusion as advised by Currie, or sponging with water were resorted to with advantage.

Where delirium attended, which was very often, it was of the constant kind, and sometimes particularly violent. There was no great heat of skin, nor was the pulse full though excessively quick. Sickness and vomiting, pain of the

head, and breast, hiccough, and tension of the abdomen were frequently prevailing symtoms.

The application of blisters was highly successful in removing the delirium. But be it remembered they were not employed in that timid way which private practice commonly sanctions and pursues. The plan was simply this, the head was shaved and completely covered with a blister, a second was applied to the back and sometimes recourse was had to a third, or fourth blister. Five grains of Calomel, with other purgatives in conjunction, were given every hour until their use appeared no longer necessary. Where sickness and irritability of the stomach existed at the same time, which was generally the case, the Saline Mixture with small doses of Tincture of Opium, and a blister to the *scrobiculis cordis,* were employed with evident advantage. And when the skin was hot it was freely sponged with cold water and vine-

gar. To means so active as these, delirium was sure to yeild, and it mostly did so about the third, or fourth day.

CHAPTER, III.

Of the Walcheren Continued Fever.

SOME patients in the Walcheren fever were suddenly attacked with a convulsive shaking of the whole body. The pulse was small, quick and fluttering, the skin cold and destitute of vital heat, the respiration hurried, difficult, and laborious, the face pale, wild, and expressive of considerable anguish, and the eyes large and rolling in their sockets. The patients were perfectly sensible, alive to the danger of their situation, and complained of being excessively cold, and feeling great bodily distress. The practice which sometimes succeeded was the exibition of Camphor, Œther, and Opium, in large doses, port wine rather freely, the warm bath, and the

application of a blister to the breast. Cases like these were not very numerous, and they generally ended in death about the second or third day. In the Walcheren fever, extreme irritability of the stomach was a very prevalent and dangerous symptom. I have known this irritability increase so much as to render the exhibition of any thing whatever utterly impossible. It appears unnessary to remark that in such cases recovery could seldom happen. A large blister to the stomach, Opiates combined with Saline Medicines, and Cordials, and Glysters composed of Assafœtida, and Opium were occasionally successful in removing such irritability. I have also found Port Wine made warm of considerable service. In several instances the stomach was able to retain it, when it uniformly rejected every other fluid.

In these abundant cases of fever where a want of action was evident, where debility assumed a

formidable appearance, and where this irritability of the stomach too frequently existed, and death too often succeeded, Port Wine, and Opium, sometimes saved the subjects of them from destruction. Without Port Wine the Walcheren fevers would have almost always terminated in death. In every instance was it employed by me, and I cannot speak too strongly in its favor. To imagine that bark, or any other remedy of a similar nature, was of service in this fever would be, if there is any truth in these pages, or if I have any correctness of judgment, or observation, to exhibit the imbecility of human intellect.

In the Walcheren fevers theorists speculating at a distance would have performed wonders, but practitioners, under whose management they were, could find only difficulties, and were frequently without the power of removing them. Theorists when visceral disease existed, a sub-

ject which I shall presently discuss at considerable length, and which I believe gave rise to irritability of the stomach and many other tedious and dangerous symptoms, would have attempted its cure by mercury, they would have supported the system by bark and nutritive glysters, they trusting to the mighty powers of absorption would have employed frictions with similar views, and finally they would have done, and proposed every thing, but what was really admissible. Those whose lot it was to treat the Walcheren fever know, or ought to know, that mercury, as I shall hereafter prove, was pregnant with injurious consequences, and that bark and nutritive glysters, and frictions are more plausible in imagination and theory than useful in reality and practice.

In conjunction with irritability of the stomach and the many other symptoms I have enumerated, the abdomen was often enlarged with a great

sense of fullness, there was excruciating pain in almost every part of it, and pressure was exceedingly painful near the situation of the liver, stomach, and spleen. Anodyne glysters, warm fomentations, opiates, and blisters sometimes gave relief, but I am sorry to say much oftener failed.

In numerous cases violent and constant pain of the head was a very distressing symptom. It was generally removed by shaving the head, and covering it with a very large blister. Indeed in all the Walcheren diseases pain of the head was a very common symptom.

In some cases the subjects of them complained of difficulty in passing the urine, which was of a bloody colour. I have sometimes thought this originated from a slight affection of the kidneys, and it seems to me not improbable when when I recollect they also complained of pain

of the back. However it is equally probable to suppose it was occasioned by spasm, or stricture. Anodyne glysters, Cream of Tartar, mixed with barley water and taken as common drink, together with Opiates internally were successful in removing it. A case of this nature deserves notice. A soldier just recovered from the Walcheren fever was attacked with pain and difficulty in voiding his urine. I ordered for him the usual remedies, which had the desired effect. In a day or two his left testicle became considerably swelled and inflamed. It was exceedingly painful, and the pain extended down the thigh, and upwards into the abdomen. Cold applications gave excruciating pain; warm ones were more successful. Suppuration was indicated by a soft, elevated, and red tumour being visible on the anterior part of the testicle and immediately below where the spermatic chord is inserted. In two or three days this tumour burst and discharged a quantity of pus, and be-

fore six days had elapsed the scrotum ulcerated, and through the ulcerated aperture a brownish substance, the size of a large plumb, protruded. It was the *Epididimis,* and to the touch exceedingly painful. In a short time the whole of it sloughed away, the orifice in the scrotum contracted and closed, and the patient was discharged perfectly well.

That Visceral disease existed in many of the Walcheren fevers is a fact which dissection incontrovertibly established, and it is one which I have more than once mentioned in particular terms. I am of opinion that this disease was the exciting, or at least the principal cause of the fevers. In possession of the important fact of there being visceral disease, especially of the Spleen, and Liver, it is easy to account for particular symptoms in the Walcheren fever, and why such symptoms were not always removable by art. I shall shew hereafter that the

Spleen was in general considerably enlarged and diseased, and that it very frequently weighed from four to five pounds. The circumstance of this almost incredible enlargement of the Spleen, and the knowledge of a healthy one weighing only six ounces, would seem to afford a very satisfactory reason why in the Walcheren fevers there was generally extreme, and often fatal, irritability of the stomach. I am persuaded this irritability was occasioned by the pressure of the enlarged Spleen on the posterior part of the stomach. Under such melancholy circumstances how could art be of service? art could not accomplish impossibilities! Where disease of the viscera existed, death was I believe almost always the consequence, if I were asked what was the general cause of death in the Walcheren fevers I would say visceral disease. Let it be recollected the soldiers had been exposed to those causes, and had pursued those practices which generally occasion visceral disease. They

had lived in a country remarkably swampy and unhealthy, and notorious for producing fevers and visceral affections, they had been much exposed to wet and night air, had frequently slept upon the damp ground, had sometimes remained for a considerable time up to the middle in water, and some of them had been much in the habit of committing excesses. Necessity frequently compelled them to drink stagnant dirty water, containing numerous insects, and whatever water they might drink it was unquestionably very unwholesome. When all this is considered, together with peculiarity of constitution, that visceral disease should be produced, and that very speedily, cannot excite any surprise, and that such disease should give rise to dangerous fever, and death, is a truth to which experience will bear ample testimony.

CHAPTER, IV.

Of the Walcheren Continued Fever.

I AM now led to the discussion of a subject which is confessedly interesting and popular. It is one on which I shall write with freedom. What I advance is open to observation, and I challenge refutation from those who entertain opinions diametrically opposite. The subject is the advantage, or disadvantage resulting from the use of Mercury in the Walcheren fever. Those whose ardent minds led them into the regions of fancy, whose rage for speculation defeated itself, and who anxiously sought to generalize where generalization was not admissible believed that in almost all the Walcheren fevers there was visceral disease, and that mercury

was its only cure. Than such a belief nothing could be more erroneous in theory, or more pernicious in practice. I mention it here only to expose its fallacy. Debility is the certain consequence of mercury. In soldiers labouring under extreme debility, who were affected with a fever of the most dangerous kind what could be expected from mercury but the greatest harm? what could it do but inflict an injury in a constitution already sufficiently broken? what could it do but add weakness to weakness? I deny that mercury was useful in the Walcheren fever, and affirm its exhibition was often attended with injury. In numerous cases there was no disease of the viscera, and here mercury could only add to a debility which threatened life. I grant, and have expressly said, there was visceral disease in many cases, particularly of the Spleen, yet mercury produced not good but harm. When mercury was employed let us enquire what were its effects, and in what way it

did occasion injury. Away with arguments; let us appeal to facts. It should not be forgotten that the subjects of the Walcheren fever were exceedingly debilitated, that this debility had come on so insidiously, and had continued so long as to have materially impaired the constitution, and that they had irritable stomachs, torpid bowels, acute pain of the head, and other distressing and dangerous symptoms. Let me pause for a moment to say how a remedy so powerful as mercury, so violent in its effects, and so lasting in its consequences, could be supposed to be salutary under such circumstances, is to me inconceivable. In the Walcheren fever, four, five, or six mercurial frictions, or a few small doses of mercury, generally produced the most dreadful salivation, which made death by suffocation not a very improbable event. The head, and face were swelled to nearly thrice their natural size, there was a considerable degree of erysipelatous inflammation, the parotid,

and other salivary glands were greatly enlarged, the tongue, and fauces ulcerated, there was an incredible discharge of saliva, and occasional hemorrhages. This is not a forced, or extravagant description, it springs not from unfounded prejudice, or preconceived opinions, it is what actually occured, and what I have repeatedly witnessed. In a state so deplorable what could be done? what could be the result? I ask, in honesty of soul I ask it and would rejoice to find myself mistaken in my judgment, could a man ill of fever with a shattered system bear such a shock with impunity? I will acknowledge for the sake of argument, though I deny the fact in terms the most unequivocal, that mercury thus administered, and occasioning such effects might cure visceral disease, yet would it not shake the constitution to its very foundation? and would it not cause a degree of weakness beyond the power of art to remove? Better, better far to perish in the swamps of Walche-

ren than to linger under accumulated misery!

Let me be excused if I mention one case, out of many, in which the employment of mercury was pregnant with mischievous consequences.

In a patient to whom mercury was. cautiously given it gave rise to a salivation which threatened suffocation. He lived some time, having repeated bleedings from the tongue, and after his death dissection presented the following appearances, written by the gentleman under whose care he was, and by me copied from his notes. The basé, one side of the tongue, the lining of the fauces, the whole of the pterygoid, and part of the masseter muscle were gangrenous and sphacelated. The parotid gland of the right side, and both the sublingual and maxillary glands, were diseased, and exhibited an horny appearance. The liver was dark and dense. The bile of a light yellow colour. The

spleen was soft but not much enlarged. The intestines, and kidneys were healthy. The heart was flaccid. The right auricle of it was distended with coagulum, and the pericardium contained six ounces of water. The body was completely wasted.

That mercury will cure visceral disease, and is the best remedy for it, I am ready to acknowledge, but there are melancholy instances, and such were the present ones, when its use is not admissible from existing circumstances. Do we not witness many cases of Lues Venerea proving fatal from the victims of it being unable to bear the use of mercury? Precisely so was it with the British Soldiers. They laboured under a low fever attended with extreme debility and visceral disease, mercury seemed to be by some the best means of curing it, but they were so debilitated, so much oppressed by various causes as to make that medicine highly

injurious to them, although it must be admitted under more favourable circumstances it might have been successful. How mercury could be any way instrumental in curing the Walcheren fever must appear to the eye of common sense observation impossible and absurd, when it is in the recollection of my readers that it occasioned excessive salivation in a few days, and rendered its further employment no longer possible. If visceral disease is to be removed by mercury it can only be done by the patient undergoing a regular course of it, by persevering for a considerable time, by keeping the constitution under the constant influence of it until the disappearance of symptoms indicate the object in view has been accomplished. Is not mercury required for weeks to cure venereal symptoms? would violent salivation induced in six or seven days, and the medicine which caused that salivation finally laid aside, permanently cure the slightest venereal affection? Is it not the same in disease

of the spleen, liver, or any other viscus? Is there a man alive mad enough to think that a diseased spleen, or liver, could be cured, or derive any advantage from bringing on in five or six days a dreadful salivation by mercury, and then being obliged to discontinue the medicine altogether from motives of imperious necessity? and is it not notorious that salivation may exist in a considerable degree, and yet the system be not at all influenced by it? If this reasoning of mine be right, how, I ask again, could mercury produce any thing but injury in the Walcheren fever, when in every case which I saw it produced excessive salivation in a few days, and many other unpleasant circumstances, and by so doing incontestably shewed that to resume it would be fraught with ruin and death.

To guard against the possibility of any misconception, or misrepresentation of what I have written on this subject, I think it right to make

a few remarks. It is what I owe not only to others but to myself. It may, perhaps, be concluded that the plan of curing the Walcheren fevers by mercury was general in that Hospital which was the scene of my practice. But such a conclusion would be founded on error. It was not so. It was neglected when experience had proved its inefficacy and danger. Those who suggested, and pursued the practice, did so from a persuasion it was the most likely to be successful, and however mistaken they might be, they were actuated by the purest and most amiable motives. I despise the man who to raise his own would sink another's fame. The practice which I have so strongly condemned, I myself have employed with a view of giving it a fair trial. The same has been done by others It is wrong to reject any plausible practice without first bringing its merit to the test; but when a practice palpably fails, when it occasi-

ons mischief instead of good it becomes the duty of every man to expose it.

But I have been principally induced to enter into these observations from a conviction that the practice of attempting to cure the Walcheren fever by mercury has been very generally pursued in other places, and from the anxious desire I feel to express against it my dissenting voice founded upon experience and observation. I recollect with a pleasure, in which self has no concern, that the practice was but little used in that Hospital to which I was attached, a Hospital in which there were more instances of recovery, and fewer of death than any other within my knowledge. And it is also in my recollection that the Physician to the Forces who was at the head of the Medical Staff there, whose abilities, industry, and conciliating manners are above my praise, and to whose friendly and in-

structive conversation I feel myself much indebted, entertains, and always did, opinions not very different from my own, and has repeatedly agreed with me that in the Walcheren deseases mercury has most egregiously failed.

CHAPTER, V.

Of the Walcheren Continued Fever.

SOME of the Walcheren fevers terminated in dropsy, generally of the abdomen, sometimes of the thorax, and occasionally of the pericardium. In such cases there was commonly anasarca of the feet, legs, scrotum, and other parts. Why dropsy was the consequence of the fever need not be a matter of any surprise. What dropsy is I profess not to explain, as it comes not within my province, but it is most certainly one of the effects, and I believe the principal one, of debility, and of visceral disease. There being both debility and visceral disease in the Walcheren fever, at once accounts for what I have stated.

When dropsy had taken place many medicines were had recourse to for its cure, as for instance, Squills, Cream of Tartar, Fox-glove, and Mercury, but I know of no case in which they were successful. The practice of attempting to cure dropsy, particularly of the cavity of the peritonœum, by mercurial frictions is I believe very general, and there are numbers who affirm it very often succeeds. It may be so. My experience of it has not been so extensive as to enable me to give a decisive opinion on so important a subject. It has fallen to my lot to witness a few cases of dropsy, where mercurial frictions were employed in the most judicious manner possible, and it appeared to me that far from being of any service they increased the debility, and the deposition of water, and accelerated death. I have seen mercurial frictions used in the mildest cases of dropsy, when success might reasonably have been expected, and I protest I never knew them productive of any

thing but injury. In one Walcheren patient labouring under Ascites, and anacarsa of the feet, legs, and scrotum, I prescribed mercurial frictions. Four frictions, of not more than half a drachm of the blue ointment, caused the most violent salivation, and considerable swelling of the face and head. From this salivation, as may be supposed, he derived no advantage, and at the expiration of four or five days died suddenly. In the dropsical patients mercury produced as far as I was able to learn, the same bad effects as in the Walcheren fever.

In the treatment of the Walcheren fever that debility, which I have so often mentioned, was always to be dreaded, it interfered in numerous cases, and frequently prevented the employment of means, which under more fortunate circumstances, might have been successful. In symptoms requiring active treatment debility would forbid its adoption. When purgatives were

necessary to empty the intestines, the stomach was unable to retain them in many instances, and glysters were necessarily substituted, the powers of which are feeble and confined. Again where every symptom and every appearance decidedly shewed the benefit which would arise from the administration of Calomel as a cathartic debility would interfere, and severe salivation would suddenly come on where it was not intended, or imagined, where it was prejudicial, and where the only intention was to evacuate the bowels.

One case of fever I cannot suppress the strong desire I feel to narrate the particulars of, as it is so finely illustrative of that debility, and want of action, the truth of which I have so unremittingly endeavoured to establish. I fear some of my readers will be inclined to think I am excessively tedious in reverting so often to the great debility which existed in the Walcheren

fever. But I cannot for a moment think so myself. For that debility was the grand pivot on which the disease revolved, and without that were perfectly understood and admitted I should lose my labour, and fail to give a correct account. A Soldier, quite a young man, was brought into the Hospital, and placed under my care. He had been under medical treatment, but how long, and for what, I am unacquainted. When I saw him he laboured under the usual symptoms of the Walcheren fever in its early stage. He was rather of a strong habit. The pulse was quick and not very full, the skin hot, the tongue dry and white, and the bowels irregular. To these symptoms were added pain of the head, irritability of the stomach, and a confusion of mind which is generally the precursor of delirium. The succeding day he was affected with violent and constant delirium. He raved incessantly, appeared to be in a state of great mental agony, and was with difficulty retained

in bed. The head was blistered, the bowels opened by Calomel, the skin sponged, and saline medicines administered. I discovered by accident he likewise had the venereal disease, and upon examination found a small bubo in the right groin which appeared to have suppurated, and that he had a phymosis, which was inflamed and tumefied, and from the inside of the prepuce, and glans there was a free discharge of matter. I was told on enquiry he had contracted the disease at Middleburg. Whether he had been under any treatment for it I do not exactly know, but am led to think not from the answers he gave to my interrogatories. In the appearance of the penis, and bubo, there was nothing very unhealthy, or dangerous. It seemed a common case of the venereal disease, where from the use of mercury, and other means, for a few weeks a cure might be confidently predicted. About the fourth day the fever and delirium subsided, and left great

debility. Now it was the prepuce assumed a gangrenous aspect, and the bubo once small, with a trifling aperture, became also gangrenous, and speedily exposed a surface in the groin of immense extent. Such was the disease of the penis that he was seized with retention of urine. I passed a flexible catheter through what I may justly call a mass of disease into the bladder, and evacuated therefrom one quart and a half of dark coloured urine. Let it suffice to say he died nine days after his admission into the Hospital, and four days after his penis, and bubo became gangrenous. The day preceding his death nearly the whole of the penis was black and gangrenous, and the bubo presented a deep and sphacelated surface of a very considerable size.

What a striking proof does the above case afford of general debility, and the consequences of it! The patient, strictly speaking, did not

die of the venereal disease, nor did he die of fever. No—he died from the baneful consequences of debility. He died because those parts, which in a state of health and action, would have been easily cured, sunk into destructive gangrene from the enfeebled powers of the system affording them no assistance.

The debility I have spoken of in the Walcheren fever extended itself to the stomach, intestines, and other organs. I have already noticed the extreme irritability of the stomach in abundant cases, but in numbers of a minor nature where the patient was either convalescent or nearly so, the powers of it were considerably impaired, and when febrile action had subsided it was a matter of infinite difficulty to exhibit corroborant, or tonic medicines. Bark under any form was but of little utility. The stomach could retain it but seldom, and it often occasioned sickness, vomiting, and purging. I some-

times found the infusion of Quassia, and Colombo, of service, but these had similar bad effects. The intestines when cleared of that vitiated matter which had so long oppressed them were exceedingly weak and irritable. In many cases they were so irritable and disposed to diarrhœa that Opiate Confection, or Cordials, were regularly taken for a considerable time. As a corroborant, Port Wine was of eminent service, free from the unpleasant effects of bark, colombo, quassia, and other remedies, it uniformly exhilirated the patient, and greatly contributed to the restoration of his strength.

Soldiers convalescent from the Walcheren fever presented to the eye of a stranger a melancholy and dismal appearance, they seemed as if they had been resuscitated from the grave, language can give but a faint idea of their general looks; they were a walking spectacle of extreme emaciation, and a heart rending proof of what dis-

ease can produce. The face was of a yellow colour, the cheeks hollow, the cheek bones prominent, the eyes sunk in their orbits, and without vivacity, little expression was to be seen in the countenance, no smile illumined the face, all, all was despondency, and distress! In figure they were perfect skeletons, and crawled from place to place with weak and tottering limbs. They were a long, a very long time in recovering their wonted strength. Their appetites were generally good, and with them Port Wine was a great favourite. Many of them laboured under shortness of breath, and the least exercise was very fatiguing.

Let me not be blamed if I wander from the the frigid path of narrative into the more genial one of sentiment and feeling to indulge in a few reflections which the description I have given has awakened in my mind. These men but a very few weeks before were well, in pos-

session of vigorous health, and hearts beating high with military ardour, with minds ardent for their country's good they sailed from England with expectations raised, how many of them, (for soldiers were not the only sufferers,) left behind a parent to whom they were dear, a female whom they loved, and a family who clinged to them for protection and support, which an unkind and misjudging world renders often necessary! How little did they think that hundreds of them would never more return, that death whom they had braved in the field, would suddenly attack them in a pestilential Island and make numbers of them his unfortunate victims, and oh! how little did they think that those who escaped the grasp of relentless death, would visit their native land pale and wan, robbed of all manly vigour, and of nearly all which can make existence valuable, or desirable.

CHAPTER, VI.

Of the Walcheren Continued Fever.

AN unpleasant task now devolves on me, which I perform with reluctance. It remains for me to give an account of the manner in which death closed the scene of human suffering in the Walcheren fever, and to state what were the appearances on dissection. The way in which this fever ended in death frequently varied. In the majority of cases considerable prostration of strength, an excessively quick and thread-like pulse, clammy sweats pervading the whole body, the mouth dry, the tongue coated with a thick crust approaching to blackness in colour, the teeth and lips covered with sordes, the

countenance sunk and ghastly, the respiration hurried and oppressive, muttering delirium, and a convulsive affection of the larynx were the symptoms which preceded dissolution.

In other patients, there was irritability of the stomach, pain of the head, tension of the belly, distressing pain extending over every part of it, and an inability to evacuate the urine.

In some, particularly those who laboured under very violent fever, a strong convulsive motion seized the whole frame, the face was flushed, sunken, and death-like, the mouth open, the eyes large and fiery, and breathing convulsed and agonizing. To see soldiers who had fought their country's battles die in this way was horrible. To the sensualist, and the libertine such a sight might present an useful and instructive lesson, and cold blooded, narrow minded, and self intriguing men, might look, tremble, and gain wisdom.

In a few patients a state of coma, and stertorous breathing were the precursors of death, and I recollect in one case the whole of the fleshy part of the nose became suddenly of a dark venous colour.

Others died quietly from sheer debility. They were unable to speak, expressed no sign which could indicate pain, lay perfectly still, and slept away exhausted life.

I have known some die as if they were labouring under Croup, they were supported in an erect position, breathed with agony and a clangorous sound, and expired in a very short time, and I have seen others die very suddenly, perfectly sensible, and able to articulate faintly.

Where water existed in any of the cavities death was sudden and unexpected.

The singular way in which some of the Walcheren fevers ended in death, and the strange appearances which dissection exhibited, deserve to be particularly recorded.

A Soldier who had for a short time been convalescent and who laboured under severe diarrhœa and debility complained in the morning of a tickling sore throat which he attributed to cold. No danger being apprehended a common gargle was ordered. In the evening he was suddenly attacked with inconceivably difficult respiration, and swelling of the right side of his neck. Before an hour elapsed he expired from suffocation. Immediately after death the swelling subsided, and the face was livid, and resembled that of an executed criminal. The trachea, larynx, and œsophagus were removed from the body, and upon inspection the *epiglottis* cartilage was found highly ædematous, and by covering the opening into the larynx,

by anatomists called the *glottis*, had occasioned death by preventing respiration. The liver, and spleen were diseased. The transverse arch of the colon, and the cœcum, which was very large, were nearly full of hardened fæces, and the descending colon, and rectum were empty.

In this unfortunate case had the real state of things been known, or suspected, the performance of the operation of tracheotomy might have preserved life.

A Soldier who had recovered from the Walcheren fever was affected with anasarca, and in a few days died suddenly from suffocation. Upon dissection it appeared that the *epiglottis* cartilage was œdematous, and the mucous glands of the *rima glottidis* were enlarged, ulcerated, and one of them in a state of suppuration. Death being occasioned by suffocation was thus accounted for, as that open-

ing on which life depends was shut up by enlarged, ulcerated, and suppurating glands. The liver was diseased. The trachea healthy. The lungs turgid with blood. The spleen enlarged and diseased.

In one case of the Walcheren fever attended with great emaciation, the abdomen was contracted as if a broad ligature had been employed for that purpose, and on dissection, the liver was found livid and hard, the intestines drawn together, and the cavity of the peritonæum in a state of extraordinary dryness.

A soldier greatly debilitated by the Walcheren fever, was attacked with inflammation and swelling of the left thigh, which extended to the knee. The inflammation terminated in suppuration, and an abscess formed under the external fascia of the outside of the thigh. This abscess was very large, was opened in a few

days, and discharged two pints of pus, and continued to do so freely until death, which took place in three weeks, in consequence of hectic fever, and debility. On laying the abscess open it was found to extend from the great trochanter of the thigh-bone and from near Poupart's ligament, into, and a little below, the joint of the knee. The muscles were black and gangrenous. The whole of the femur, excepting the linea aspera and the part near the hip-joint, was denuded, and rough, but not enlarged. The cartilages of the knee-joint were nearly absorbed, and the caspular ligament was carious. There was but little discolouration of the skin of the limb. The liver was dark and flaccid, and the bile healthy. The spleen was very much ulcerated, adhered firmly to the surrounding viscera, and one part of it was united to the liver and contained pus of a red colour.

In a few cases of the Walcheren fever there

was a violent vomiting of bilious matter. The following is an interesting case of the kind, with the appearances on dissection.

A Soldier was attacked with irritability of the stomach, and vomited daily a pint of green coloured fluid, and died in seven or eight days. Upon dissection the liver was found turgid with blood and bile, and the gall bladder was distended with healthy bile. The stomach contained one pint and a half of green fluid, and its internal coat was covered with numerous small coagula of a bloody colour, and which had evidently come from the vessels. The spleen was enlarged, and had in some parts, a caseous appearance. The jejunum was full of green viscid fluid, and the ileum and colon were empty.

That the Walcheren fever sometimes terminated in dropsy I have not failed to notice, and the case I am now going to relate is a very curious one of that kind.

A soldier who had recovered from the Walcheren fever, which was succeeded by dropsical symptoms, was admitted into the Hospital for a second attack of this fever. The pulse was small and frequent, the eyes staring and fixed in their sockets. He had delirium, but no head ache, or symptom of dropsy. In five days he was no more. What follows appeared on dissection. The upper part of the cranium had many deep holes in various parts of it from the size of a pin's head to that of a pea, and they seemed to have been produced by warty cartilaginous substances growing from the tunica arachnoidea, and which had penetrated the dura mater, and caused absorption of the bone by their pressure. Upon removing the dura mater the tunica arachnoidea appeared like a watery vesicle, and when punctured discharged an immense quantity of water. The substance of the brain was remarkably firm, the ventricles were filled with water, and the centrum ovale pre-

sented numerous points of blood. The other parts of the body were healthy.

It is but justice to state that for the two preceeding cases which I hope will be deemed valuable, I am indebted to my friend Dr. Monteath, a gentleman possessed of a very considerable share of anatomical, and professional knowledge.

In the dissection of numbers who fell victims to the Walcheren fever, the following are the general appearances after death.

The Brain was sometimes firm, but much oftner soft and flabby, the medullary part of it was of a dingy white colour, and occasionally the vessels were red and turgid. In one case there was an effusion of water between the pia mater and tunica arachnoidea. In some cases the Lungs were diseased, black in colour, and

distended with water. The cavities of the Thorax were filled with water, and water in the pericardium was not uncommon. The Liver was frequently found diseased, enlarged, hard, and of a dark purple colour, and in a few instances there was effusion under its peritonœal coat. Upon cuttting through the substance of the liver dark blood generally flowed from its vessels. The gall bladder was mostly a little enlarged, and filled with black and thick bile, but I have known it of a dark green colour, and likewise serous, curdly, and tasteless. The stomach was fonnd large, flaccid, the coats thickened, and the internal surface of it corrugated, and covered with a dark fluid resembling grumous blood. I may venture to say without fear of contradiction that the spleen was enlarged and diseased in almost every case. It generally weighed from three to five pounds. Let it not be forgotten that a healthy spleen weighs only six ounces, and that such disease was a remark-

able and extraordinary circumstance in the Walcheren fevers. The spleen was in general a mere cavity containing a black fluid of the consistence and colour of treacle. In two or three cases the surface of the spleen was marked with large yellow coloured spots, which extended an inch into the substance of it. In one case an abscess was discovered in this viscus, which not only adhered to the diaphragm, but had ulcerated through it, and diffused pus into the cavity of the thorax. In another case the surface of the spleen was considerably indurated, and the edges of the induration surrounded by pus like a line of seperation between a dead and living part. In many cases abscesses, and large ulcers existed in the spleen. The Kidneys were generally found in a healthy state. In several cases the small intestines, particularly the ileum, were of a very dark colour and covered with turgid vessels, and the internal surface of them was nearly black and contained a

dark green mucus. The jejunum was often contracted, thickened, and of a pale colour, as was also the colon. The Mesenteric glands were sometimes enlarged and turgid with blood and the Mesentery frequently exhibited the ramifications of red vessels in a most beautiful manner.

Entertaining a hope this work will be read by many not in the profession, and as the spleen was in a very astonishing degree the subject of disease in the Walcheren complaints it appears to me it may not be improper to give a concise description of that organ in a state of health.

The spleen is about six ounces in weight, of a purple colour, and oval figure. It is situated on the left side, between the left extremity of the stomach and diaphragm; is attached to the former by vessels, and to the latter by membrane. The spleen is spongy in substance, and

extremely vascular; its use is unknown, and it is seldom affected with disease.

The judicious and well informed reader when he has attentively read all I have written on the Walcheren fever, when he compares all the various symptoms attending it, with those causes which are allowed to have produced it, and with the appearances which dissection exhibited in fatal cases, he will without any assistance of mine, form in his own mind a very correct judgment of the disease. He will do well to recollect that the Walcheren patients were greatly debilitated, that they were affected with a fever of the low kind, approximating to Typhus but seldom exactly resembling what is, perhaps erroneously, understood by that popular term, that considerable numbers died of this fever, and that a much larger proportion recovered from it. Revolving all those important circumstances in his mind, he will, if he thinks as I do,

and which I suspect is right, be convinced, that in those who recovered from the Walcheren fever there was either no disease of the viscera or what was very slight, and he will also be convinced that in those whom this fever brought to the grave there was generally, but certainly not always, great visceral disease.

CHAPTER, VII.

Of the Walcheren Intermittent Fever.

THE Walcheren Intermittent fevers were the most numerous, tedious, and unmanageable cases which that Island produced, and they had I regret to say much oftener a fatal termination than might be supposed. Other diseases would generally yield to established practice, but it is a melancholy truth that in those of the Intermittent kind, the reverse very frequently happened. When every preceeding and attending circumstance is duly considered, we need not wonder that it should be so, for all the subjects of the Walcheren Intermittents were consider-

ably debilitated, not only from causes already noticed, but from having in many instances recovered from another disease, as I shall presently have occasion to mention.

I have to observe that in every soldier, whether in a state of health, or labouring under fever, dysentery, or diarrhœa there was a strong predisposition to Intermittent fever. Walcheren patients in a convalescent state, or recovering from disease, were suddenly and unexpectedly attacked with it in abundant instances. Than this, nothing could be more mortifying, or perplexing. I have stated that the Walcheren Continued fever often degenerated into the Intermittent, and the Intermittent much oftener into the Continued fever. Conceiving this fact to be of an important nature, and one which involves many interesting points for consideration, I have requested it may be recollected. I wish to impress this, and other facts, upon the mind

of my reader, and I beg leave to call his attention to the following brief and clear statement of them.

1st. In all the Walcheren soldiers, no matter what the disease might be, there was a strong predisposition to Intermittent fever, and there existed great constitutional debility, an inactive state of the intestines, an accumulation of dark and vitiated fœces, and a bilious tinge of the skin, and face, indicative of visceral obstruction.

2nd The Walcheren soldiers were, in the first instance, affected with Intermittent in a number surpassing those who were attacked by the Continued fever.

3rd Many soldiers who were the subjects of the Walcheren Continued fever had laboured under the Intermittent fever.

4th In direct opposition, numbers of the soldiers who had the Intermittent fever, had recently recovered from the Continued fever.

5th In the Walcheren diseases, disease of the Spleen in particular, next to that of the Liver, and sometimes of the other viscera, was an extraordinary and common circumstance.

If my reader will bear the above facts in his mind he will understand what I write, comprehend all I attempt to prove, and in this respect at least, do justice to my labours, however low they may stand in his estimation. Without this be done much confusion will necessarily arise, and I may be accused of having failed in giving a lucid account of two very important and prevalent diseases, and of having neglected to notice how intimately they were connected, or rather sprung out of each other, imperceptibly. Such an accusation I am desirous of preventing from a consciousness of its not being deserved.

The reason why the Walcheren Intermittents were more tedious and unmanageable than any other disease, is attributable to the following causes. The subjects of them were in a very weakly state, owing to the circumstances I have detailed. The stomach was weak and irritable, and but little able to retain what it might receive. The intestines when relieved of their contents, became in a very relaxed state, and were not unfrequently affected with troublesome and obstinate diarrhœa. In numerous patients there was distressing cough, difficult breathing, pain of the breast, a quick pulse, and a train of pulmonic symptoms which threatened danger. In a great many there was violent pain and giddiness of the head. This pain was as I have before remarked, a common symptom in the Walcheren complaints. I recollect but few patients in whom it did not exist. In others there was œdematous swellings of the legs and feet, the consequence of debility, and I have

known this œdema continue a considerable time.

To effectually cure the Walcheren Intermittent fevers was extremely difficult in the mildest cases. They were so firmly rooted in the system, or in other words, the diseased action was so strong from long continuance, as to require something beyond common means for its destruction. I have known Intermittents last for months without variation in the time or severity of the paroxysm, and I have seen them do this in spite of all medical aid, affording a convincing proof that such aid was not of the slightest service. I recollect numerous instances of Intermittents disappearing for a week, and thereby encouraging a hope of their being cured, and then return, and continue a longer time, and with greater violence. And finally I have seen Intermittents injure the constitution irreparably, and lay the foundation for death

in different ways. The Intermittents were often attended with sickness and vomiting, and also with troublesome and obstinate diarrhœa, and I need not add that pain in the hypochondrium, tension of the abdomen, and other symptoms indicated, what was not unfrequently the fact, the existence of visceral disease.

Desirous of entering more fully into the subject of visceral disease, as being intimately connected with the Walcheren Continued, and Inmittent fevers, I embrace this opportunity for that purpose.

Whether visceral disease was the cause, or only the effect of these fevers, is an interesting question, but one exceedingly difficult to answer correctly. I have considered it with as much attention as I am capable of, and after having compared every circumstance, and al-

lowed each its due weight, I am induced to form the following opinions.

I believe that visceral disease, where it existed, was generally the principal cause of the Walcheren Continued fever, and I think so because in numbers who have died of this fever in a very few days disease of the viscera has been found on dissection. This fact renders it very improbable that from the commencement to the termination of this fever, sometimes only three, four, or five days, and never a very long time, the viscera could have become diseased. It is much more probable that in a debilitated system where there was visceral disease, a fever peculiar to the Island of Walcheren succeeded, and death was the consequence. My opinions on this fever are already known, but fearful of misconception, or misrepresentation, I will repeat them more perspicuously, and at greater length.

1st As the Island of Walcheren is notorious for producing visceral disease, I believe that such disease sometimes precedes, and is one of the principal causes of the Walcheren fever, and of its ending fatally.

2nd I unreservedly admit that visceral disease is not necessary for the production of this fever, and I acknowledge that this fever may, and does exist without it, as I have repeatedly witnessed.

3rd The British soldiers who recovered from the Walcheren fever had either no visceral disease, or what was too slight to occasion immediate injury, and those soldiers who died of it had very generally disease of the viscera.

Such are my opinions, they may be right, or they may be wrong. My readers may adopt

or reject them, as they think proper. I wish them to consult their own judgment, and act by the dictates of it invariably. The Walcheren diseases are a subject of interesting and curious speculation, and any opinions which have plausiblity to recommend them, and have for their object the elucidation of truth, are deserving of attention

As far as visceral disease is connected with the Walcheren Intermittents, I entertain rather a different opinion to what I have expressed on the Continued fevers. Though I have no doubt, and am indeed certain of it, that in many cases visceral disease preceded the Intermittent fevers, yet I am persuaded from extensive observation that in the majority of them the Intermittents gave rise to disease of the viscera, and my reason is that I have had several Intermittent patients, where there certainly was no dis-

case, but from the long continuance of the fever, they gradually sunk, and presented all those symptoms which denote visceral disease.

CHAPTER, VIII.

Of the Walcheren Intermittent Fever.

WHAT the theory of an Intermittent fever is, may be justly considered one of the most interesting subjects which can agitate the human mind. I will attempt to give a theory of it, and if I fail, it is a consolation to know it is what numbers have done before me. It is well known that each paroxysm of an Intermittent fever has three different stages, which are termed the cold, hot, and sweating. Languor, a sense of debility, unwillingness to move, frequent yawning, and aversion to food make the

cold stage. The face and the extremities become pale, the skin over the whole body is constricted as if from cold, and the bulk of every external part is lessened. In a short time the patient feels excessively cold, and universal rigors, pains in various parts of the body, and sickness and vomiting succeed. The respiration is frequent, the pulse small and often irregular, and sensibility is rather impaired. When these symptoms abate, the exact time they continue, being uncertain, and varying according to circumstances, the second, or hot stage commences with an increase of heat over the whole body, pain in the head, throbbing of the temples, anxiety and restlessness, thirst, dryness of the skin, the pulse more regular and full, and the respiration more free and less frequent. After some time has elapsed a moisture appears on the skin, and gradually becomes a sweat, which at length extends over the whole body, and this is what is usually denominated

the third or sweating stage. Then it is the heat of the body begins to diminish, the thirst and other symptoms cease to exist, and every thing returns to its natural state. I will now endeavour to explain in what way these different stages are produced in the system. I suppose the cold stage to be occasioned by a torpor siezing the powers of the heart, which renders it incapable of propelling the usual quantity of blood to these parts situated at a distance from it, hence they are deprived for a time of their accustomed blood from which they derive their vital warmth.

It is generally allowed that when the body is oppressed by any morbid cause there is a strong disposition to overcome it, and this is termed the reaction of the system. In the cold stage of an Intermittent fever, the system is greatly oppressed by torpor of the heart, and a reaction takes place, which after a powerful struggle

overcomes that torpor. Here ends the cold stage and now the hot begins. Parts long torpid and wanting vital warmth do, when that torpor is removed, become excessively hot. This is too notorious to be denied. Why it is so is not my province to explain. I content myself with stating a simple fact. What happens in using the cold bath? you are very cold, and then more than usually warm! What takes place in a limb frozen by cold? A sensation of cold is experienced in the first instance, and is soon succeeded by a degree of heat amounting to burning! If these facts be admitted, and I presume they will, the hot stage of an Intermittent fever is produced by the reaction of the system, having overcome the torpor, which existed in and gave rise to, the cold stage, and by so doing an excess of vital heat is the consequence. The diminution of that excess of vital heat to the natural standard is effected by moisture appearing on the surface of the body, and this consti-

tutes the third or sweating stage. It is exactly the same in Continued fever. In fever we have a skin burning hot. What plan do we pursue? We abstract that heat by producing sweating! How? By cold affusion as recommended by Currie, or medicines of a sudorific nature. From this it appears evident that what is occasioned in Continued fever attended with a burning skin by means of art, is in the hot stage of an Intermittent brought about spontaneously by nature. One thing more remains to be explained before I take my leave of the theory I have attempted to establish. I have said that the paroxysm of an Intermittent fever is induced by a torpor, or in other words, a partial suspension of the powers of the heart at certain, or irregular periods. It will naturally be asked to what is the torpor attributable, what gives rise to it? This is a question I cannot give a satisfactory answer to, nor is such an answer at all necessary for my purpose. Many causes, no doubt debility is

the principal one, may produce the torpor of which I have spoken, but how it does so, and why, are mysteries I pretend not to solve. Truth and simplicitly are my only objects. I seek not to lead my reader into a train of hyphothetical reasoning which could answer no useful purpose, nor do I wish to promulgate theories to the world which are at once ingenious, extravagant, and absurd. Theories are but too often highly dangerous; they are indeed the grave of truth. The errors of great men, I need not add I do not consider myself of the number, are much more hurtful to society than those of inferior ranks, for they carry with them a degree of authority which prevents distrust, and enforces conviction. The world, and it is a lamentable truth which cannot be too frequently repeated, is more in the habit of judging by outward appearances, and of implicitly assenting to opinions and doctrines which have only great names to support them, than it is of indus-

triously enquiring into the degree of intrinsic merit they may possess, and of displaying that acuteness of investigation, and accuracy of judgment which inductive philosophy strictly inculcates, and absolutely demands. Cullen's theory of fever, if his it may be called, would have been neglected in the first instance, and sunk into oblivion in the second, had its author been a minor character.

The Walcheren Intermittents were principally of the Quotidian, sometimes of the Tertian, and very seldom of the Quartan, type, but it is necessary to mention the Quotidian would change to the Tertian, and the Tertian to the Quotidian. The cold stage in general came on either in the evening, or in the morning, and almost always continued an hour, and often considerably longer. An excessive sensation of cold was experienced in every part of the body, the pulse was hardly to be felt, there was

a degree of agony expressed which I should attempt in vain to describe, the respiration was quick, nausea sometimes attended, but seldom vomiting. The patient on the approach of the cold stage, which he well knew by sad experience, instantly crawled to his bed, and covered himself with the clothes. It was so violent that the bed shook under him, and a stranger at a considerable distance might have heard his hurried breathing, his loud sobs from the excessive cold he felt, and have formed an adequate idea of his sufferings. To the cold the hot stage succeeded, and generally continued a long time. The skin was very hot, and great thirst experienced. There was sometimes a free discharge of urine. After the hot, what is termed the sweating stage, followed. When these different stages had subsided, the patient, as may be imagined, remained weak and languid, and uniformly exhibited a sallowness of countenance.

I have to remark that in the Walcheren Intermittents there was inactivity of the intestines, and an accumulation of dark coloured fœces, and the dislodgement of them by Calomel purges was not only productive of great advantage, but indispensably necessary before curative means were adopted. The intestines were completely cleansed by Calomel and other purgatives, and then other medicines were given according to circumstances. Experience amply proved that to neglect unloading the intestines was to commit mischief.

CHAPTER, IX.

Of the Walcheren Intermittent Fever.

THE indications of cure in the treatment of the Walcheren Intermittent fever were to restore the intestines to their natural state, to stop the cold stage when on the point of commencing, or mitigate its severity and length, and to prevent the recurrence of the paroxysm at the usual, or any other period, by such means as promised to be successful, and which could be employed with safety.

To produce the first of these intentions Calomel in large doses, combined with Jalap, Gam-

boge, or Scammony, were had recourse to, and repeated during the progress of the disease whenever it appeared necessary, with great utility.

To prevent the accession of the cold stage, or mitigate its severity and length, I at different times administered Emetics, Purified Opium, Tincture of Opium, Opiate Confection, Camphor, Port Wine made warm, Prepared Ammonia, and Extract of Henbane, and of the advantage derived from each I will give an account premising that they were given when the fit was expected, or commencing.

Emetics have been warmly recommended. Of the utility of them in diseases of a febrile nature too much cannot be said. By the powerful shock which they give the system they very often destroy the chain of diseased action. The effect of emetics is great, for it is felt in

almost every part of the body. But I think they are considerably more useful in Continued than Intermittent fever. In no case of the Walcheren Intermittents in which I exhibited them did they appear to be of service.

Purified Opium I generally gave in a dose of two grains, and I recollect no instance of its preventing, though it commonly shortened the fit. The same may be said of the Tincture of Opium.

I always found the Opiate Confection, in doses of one to two drachms, of considerable service, and to it I sometimes added a few grains of Camphor with seeming advantage. The Opiate Confection seemed to be much superior to the purified opium, or the tincture. Every soldier to whom it was given was partial to it, and in the habit of asking for it, and so striking was its effect in diminishing the length of the

fit and rendering it mild, as to attract the notice of the attendants and induce them to mention the circumstance to me.

Camphor I never gave alone being well convinced its powers were very feeble. I combined it with other medicines.

Port Wine made warm in the quantity of six or eight ounces, almost always materially lessened the violence and duration of the fit, but I believe never prevented its occurrence.

Five grains of Prepared Ammonia, with an equal quantity of Camphor, and a scruple of Aromatic Confection were attended with greater success than any other medicines. I have known them prevent the fit entirely, and perhaps in no instance did they fail in greatly diminishing its length, and making it less distressing.

In some cases small doses of Extract of Henbane conjoined with Camphor and Aromatic Confection appeared useful, but never so much so as to deserve a decided preference.

To accomplish the third intention in the treatment of the Walcheren Intermittents, that is to say, to prevent the recurrence of the paroxysm at the usual, or any other period, Bark, Cuprum Vitriolatum, Colombo, Quassia, Nitrous Acid, the Cold Affusion, and Mercury were remedies employed for that purpose.

One circumstance is in my mind no longer doubtful, and that is the cure of Intermittents depends greatly on local situation. Remedies which will succeed in one place palpably fail in another. In some places bark is uniformly successful and termed a specific ; in others its inutility is so evident as to induce surprise that its merits should have ever been so highly ex-

tolled. A late writer, who is now no more and who for the handsome manner in which he has spoken of me in his writings is entitled to my warmest gratitude, after positively condemning bark declares in no instance, and his abilities were undoubted and his practice extensive, did he ever know the zincum vitriolatum fail. Some speak with equal confidence of the cuprum, and arsenic, and the vulgar are often heard to say they have cured themselves by herbs, and nostrums. Those who so sanguinely extol different medicines for the cure of Intermittents and affirm them to be specifics should know that local situation and accidental circumstances have considerable influence, and that an Intermittent, which in the vitiated air of a crowded Hospital resisted bark or vitriol, would when removed to any airy and country place yield to these, or other means.

Bark was generally administered in the

Walcheren Intermittents, and all I can say is, it often succeeded in curing them, and not unfrequently failed. One reason may be given why it did so fail, and that is, from an inability to exhibit it in large doses. In numerous cases the stomach, and intestines were so weak and irritable that its use could not be persisted in, and it sometimes produced vomiting, purging, and a train of evils.

Cuprum Vitriolatum has been highly spoken of by many eminent men as an efficacious remedy in Intermittent fevers. In those of the Walcheren kind it was generally employed, and not uncommonly occasioned pain in the bowels, and diarrhœa, which rendered its discontinuance absolutely necessary. The practice was to commence with a quarter of a grain, and to increase the dose gradually. In favor of the cuprum vitriolatum I can say nothing if I adhere to truth. In many of the Walche-

ren Intermittents it appeared to have effected a cure, but I have been informed numbers of them relapsed in a very short time. I do not believe cuprum vitriolatum has the power of curing Intermittent fever. A Physician to the Forces whose name from peculiar circumstances I cannot mention here, who is one of the warmest advocates for the utility of this medicine, has told me abundant cases have convinced him, though he once entertained a different opinion, that although it will break the chain of diseased action, it will not remove the disease.

The infusion of Colombo root, and Quassia appeared to be of service in several cases, but the misfortune was they occasionally gave rise to griping, and diarrhœa, and the patients generally expressed an aversion to them, particularly to the latter.

In a few cases of the Walcheren Intermit-

tents, where bark and the usual remedies could not be employed with safety, I have had recoure to the Nitrous Acid. It sometimes seemed to be useful, but to curing the disease it had no pretensions.

By some gentlemen the Cold Affusion was used during the hot stage with advantage. In one case it certainly was eminently successful. An Officer who was much debilitated, and with whom bark, vitriol, and arsenic disagreed, was cured by employing the affusion in this manner.

I recur to the interesting subject of mercury. By those, who believed mercury would cure the Walcheren Continued fever, it may be supposed this medicine would be exhibited in the Intermittent upon the same principle, and with the same views. It was so, and I know of no

case in which mercury succeeded in curing an Intermittent either with real, or imaginary visceral disease. The same objections to its employment, the same consequences resulting from its use which I have stated when treating of the Continued fever apply with equal force here, and render a repetition not necessary. In many Walcheren Intermittents, attended with symptoms usually denoting visceral disease, I have known mercurial frictions used until they had induced severe salivation, and when that salivation had ceased to exist the patients remained, and continued to be, exceedingly weak, with regular attacks of the Intermittent, and the same tumid belly and internal uneasiness, which induced a belief that mercury would effect a cure.

As in the Continued so was it in the Walcheren Intermittent fever, Port Wine was of the

greatest service; as a diffusible and powerful stimuli it invigorated the system, and in no instance whatever had a bad effect.

CHAPTER, X.

Of the Walcheren Intermittent Fever.

I HAVE now given a general view of the Walcheren Intermittent fever, and stated the treatment which was commonly pursued for its removal, where no adverse circumstances interfered, and prevented its adoption. The Walcheren Intermittents were not common cases, not such as would, to use a sporting phrase, afford a man fair play, they were so combined with dangerous and perplexing symptoms as at times to baffle experience and render the efforts of art fruitless. In a stomach irritable

in the extreme, how could bark, or the usual medicines, be given with safety? how could they be exhibited without danger? and when the intestinal canal was irritable, and disposed to diarrhœa, what man would have been mad enough to administer the cuprum, or zincum vitriolatum? Again where difficult respiration, pain of the breast, and distressing cough existed with a severe Quotidian Intermittent common remedies were positively forbidden, and when in addition to these symptoms there was often visceral disease, anasarcous swellings, and great debility who could think of employing vitriol, bark, or arsenic?

The above is no exaggerated detail, it is a true representation of what was very frequently met with, and the existence of which however it might be lamented, could not be avoided. To cure obstinate diseases in shattered constitutions is no easy task, to exhibit medicines for that purpose, which have the sanction of experience

and success in their favor, is not always practicable because not always safe, and all that can be done in situations so unpleasant is cautiously to attempt to do good, but still more cautiously to avoid doing harm.

The Walcheren Intermittents were often attended with pulmonic symptoms, and such cases were always exceedingly obstinate, for while pain of the breast, difficult respiration, distressing cough, and troublesome expectoration existed it was impossible to adopt any effectual means of cure, and as pulmonic symptoms will, and in these cases, did continue for a very considerable time the patients suffered extremely from daily attacks of the Intermittent which being unopposed acquired additional strength. And when the pulmonic symptoms were removed it was sometimes impracticable to give the bark, or any other medicine, in consequence of the great irritability of the stomach and intestines. In such cases, and they were not a few,

Port Wine and Opium could be only employed with any prospect of success. Under such circumstances I have tried the Nitrous Acid, but without much benefit.

In two, or three instances I have known soldiers recovering from the Walcheren Intermittent fever suddenly attacked with symptoms the most alarming and dangerous. These symptoms were coma, stertorous breathing, a quick and rather full pulse, delirium, and a moaning expressive of pain. In one case of this nature, under my own care, I opened the temporal artery, and took from it above twenty ounces of blood. As the blood was ejected by the artery the patient became more lively, expressed himself greatly relieved, and in a short time was perfectly rational. He recovered very speedily. In another case of this kind, under the care of a Physician to the Forces, I, by his desire, opened the temporal artery, and took therefrom

a large quantity of blood. I believe, but am not certain, that this case also terminated favourably.

In the Walcheren Intermittents there was at times fullness and uneasiness in the belly, pain on pressure, and irregularity in the functions of the intestinal canal. These symptoms strongly proved the existence of visceral disease, but I have to observe that in many cases such symptoms made their appearance where there was no such disease existing. They were occasioned by flatus, and a torpid state of the bowels. Abundant opportunities have impressed this truth on my mind. I have had several cases of this kind under my care, and at first was inclined to believe there was visceral disease, but more mature observation convinced me I was mistaken. The symptoms I have mentioned, which are it must be confessed similar to those which denote visceral disease, are so insidious

and delusive as to be well calculated to mislead the judgment. I was led to discover that flatus and an inactive state of the intestines gave rise to such symptoms by minutely observing in what manner they presented themselves, how long they continued, and in what way they were removed. I took notice they generally came on at irregular but frequent periods, and were commonly removed by exciting a brisk action in the intestines by Calomel and drastic purges, and that when removed they returned at various times owing to an almost impossibility of restoring the intestinal canal to its natural state. Upon comparing all these facts with those symptoms which actually indicated visceral disease I found there was a material difference. For in Intermittents attended with visceral disease the symptoms did not disappear, and return, but the pain, tension of the belly, and uneasiness upon pressure were lasting, the spleen and liver could be sometimes felt enlarged, and there

was a degree of emaciation, a heat of skin, a quickness of pulse, a brown and furred tongue, with thirst, and occasional irritability of the stomach, all totally differing from the symptoms which flatus and torpid bowels produced.

Where the Walcheren Intermittents were attended with visceral disease, large blisters applied to the seat of pain, and the administration of powerful doses of Calomel, conjoined with other purgatives, and succeeded by the warm bath, warm fomentations, Assafœtida glysters, saline medicines, and others of a similar nature, were remedies the most successful of any which were employed.

In some cases of the Intermittents, which had existed a considerable time and had reduced the system very much, I have known the patients daily complain of pain in the left hypochondrium, which though not always equally violent never

wholly disappeared. Pressure gave pain, and the obvious conclusion was, disease of the spleen. I have attempted the removal of this pain in various ways, but truth obliges me to say I never succeeded. Blisters, and Calomel purges only afforded temporary relief. In one case I thought the Nitrous Acid of service. Notwithstanding my just prejudice against the use of mercury in the Walcheren diseases I have employed it in these cases, and I did so, because it was not consistent with my ideas of propriety nor could I reconcile it to my conscience, to neglect any means under such unhappy circumstances. Mercury in this, as in every other instance, most completely failed. I recollect one case of this nature which deserves to be mentioned. The subject of it was a fine young man, of a healthy appearance, who was placed under my care for a Quotidian Intermittent. For weeks I vainly attempted to remove it. During this time he became very weakly, and his

face once ruddy and healthy assumed a yellow and sickly cast. In this state he complained of pain in the left hypochondrium, and upon my pressing on that part he experienced great uneasiness. I ineffectually tried different means for its cure. At last I determined to use mercury actuated by motives already assigned. I did so in the mildest manner conceivable, for experience had made me cautious and fearful. Four small frictions of the weak blue ointment occasioned severe salivation, which continued a very long time, and was productive of nothing but injury.

In many cases the Walcheren Intermittents gave rise to dropsical symptoms, which were sometimes removed by Calomel, and drastic purges, and Foxglove. In a few instances patients while labouring under Intermittent fever and dropsy were suddenly siezed with the Continued fever which speedily terminated exist-

ence. I will relate a case of this kind, with the appearances on dissection.

A Soldier affected with an Intermittent and dropsy was attacked with the Continued fever. Hardness and enlargment of the spleen could be felt, and pressure on the abdomen occasioned great pain. He died in three, or four days. The cavities of the thorax contained pus, coagulable lymph, and water. The lungs were tuberculated, and the right lobe was red with ecchymoses. The pleura was inflamed, and the lungs adhered to it, and the diaphragm. The liver was dark and hard; the bile green and bitter. The spleen weighed two pounds, and adhered to the diaphragm. It had a sloughing ulcer on its upper part, and there was another which had penetrated the diaphragm. The colon was contracted. The abdomen was full of water, and all the viscera covered with coagulable lymph.

The following case is an instance of the Walcheren Intermittent-fever unexpectedly ending in death in consequence of dropsy.

A Soldier who had laboured under a severe Quotidian Intermittent for several weeks became suddenly dropsical and expired in twelve hours. The cavity of the peritonœum, thorax, and pericardium were distended with water. The heart, and stomach were immensely large.

I have been favoured with the above cases, and some others, by my friends Mr. Hardy, and Mr. Bennett, surgeons who were engaged in the same service as myself, and who, for the ability and zeal they uniformly displayed in the execution of it, are entitled to the highest praise.

CHAPTER, XI.

Of the Walcheren Intermittent Fever.

To behold pain, disease, and misery among individuals, caused not by themselves but by circumstances over which they could exercise no controul, the consequences not of their own follies but of the follies of others to which they were helpless victims, must ever excite painful sensations in every feeling mind. But to contemplate almost hourly the sufferings of humanity, to attempt to alleviate them without success, to see the unhappy sufferers sink into an early grave, to remember, and the remembrance

is poignant indeed, that however obscure their rank may be, or lowly their situation in life, they still have connections to whom they are attached and who are anxiously interested in their fate, rouses into action all the best and finest feelings of the human heart. This is a theme on which the pen of sympathy and benevolence loves to expatiate, it is one that language, however fertile, might be exhausted on, and it is one, which I will leave to abler hands.

The above reflections have almost spontaneously arisen in my mind as I proceeded to state in how many different ways the Walcheren Intermittent fever put a stop to the powers of life.

I recollect but few instances of the Walcheren Intermittent fevers becoming immediately fatal. Whenever they did terminate fatally it was gradually, that is to say, the constitution sunk from repeated attacks of a disease which

could not be overcome, and by its long continuance gave rise to other and much more dangerous diseases.

I feel confident in affirming, and I am authorised so to do from the extensive observation I have had, that the Walcheren Intermittent fever terminated fatally in one, or other, of the following ways, and that sometimes there was a combination of them.

1st By extreme debility accompanied with a yellowish tinge of the face, and surface of the body.

2nd By degenerating into Continued fever.

3rd By visceral disease.

4th. By pulmonic symptoms.

5th. By dropsy of the abdomen, thorax,

and pericardium occasioned by visceral disease, or debility.

6th By dysentery.

7th By diarrhœa.

Where death was produced by extreme debility, the patient appeared free from uneasiness and lay perfectly motionless. The face was sunk and deathly, and of a yellow colour, the power of articulation was sometimes extinct for several hours, respiration was hurried and catching, the pulse so small as hardly to be felt, and the tongue, lips, and teethcoated with a dark red substance.

In cases where the Intermittents had a fatal termination by degenerating into the continued fever it is not necessary for me to mention

what the symptoms were, as they will be in my reader's recollection.

In these Intermittents in which disease of the viscera caused death, there was excruciating pain in the abdomen, and likewise upon the slightest pressure. The urine was sometimes of a bloody colour, there was a frequent inclination to discharge it, and it was done in very small quantities, and with considerable difficulty. The stomach was in general so irritable as to reject every thing. There was a great degree of symptomatic fever, the pulse was exceedingly small and quick, the skin not very hot, the mouth and fauces were without the least moisture, and the tongue was covered with a thick and dry crust of a dark red colour. The irritability of the stomach, and pain in the abdomen commonly subsided a short time previous to dissolution.

When pulmonic affection was the means of

death in the Intermittent fevers, a tickling cough, hectic fever, a small and quick pulse, an irritable stomach, and sometimes colliquative diarrhœa, and extreme debility, and restlessness were the prominent symptoms.

Where visceral disease, or debility in the Walcheren Intermittents occasioned dropsy of the abdomen, thorax, and pericardium, death took place very suddenly, no doubt from the water impeding the action of vital parts.

Intermittents ending in death by dysentery, was not a very frequent occurrence, but I have known it happen in several cases. The cold fit gave way to what is called a cold shivering, and the patient complained of severe and constant pain in the belly, an incessant desire to go to stool, which when indulged, as it was repeatedly, was attended with a painful evacuation of bloody coloured mucus. The pulse was small

and quick, the tongue brown and furred. Death in five or six days ended all earthly sufferings, and was generally preceded by hiccough, heart burn, and a cessation of pain.

It was not often that diarrhœa produced a fatal termination in the Intermittent fever, but such instances did occur In patients who laboured under a severe Intermittent, which by long continuance had greatly reduced the system, an obstinate and fatal diarrhœa came on, which destroyed life in a few days.

I shall conclude my observations on the Walcheren Intermittent fevers by stating that almost every case of them was tedious and dangerous. The disease was always overcome with difficulty, and when overcome left behind great debility, and a strong disposition to relapse. I have known it relapse again and again, continue longer and be more violent than before,

and at last lay the foundation for death. Of the Walcheren Intermittents thus much may be said, they were more numerous, more obstinate more generally fatal, directly and indirectly, than any of the diseases which that Island occasioned.

CHAPTER, XII.

Of the Walcheren Dysentery.

THE cases of Walcheren dysentery were not very numerous, and it was I believe seldom the primary disease. I do not deny but that in several instances it might be so, but generally speaking it followed other diseases, and chiefly Intermittent fever. As far as my observation and experience extends death in the Walcheren dysentery was more common than recovery.

The symptoms were constant and excruciating pain in the belly, a frequent desire to go to stool, a painful discharge of a thin fluid of a

bloody colour which deposited a kind of brown mucus, a small and quick pulse, a hot skin, a furred tongue, dryness of the mouth and fauces, a considerable degree of thirst, irritability of the stomach, delirium, and great irritation and pain at the extremity of the rectum. There was very evident prostration of strength, and the face exhibited an expressive grin and a twisting of the features, indicative of unspeakable agony.

The general practice in the Walcheren dysentery was the administration of evacuants, and opiates, such as Calomel, powder of Ipecacuanha, Castor Oil, Vitriolated Magnesia, Starch glysters, Rhubarb, Opium, and the compound powder of Ipecacuanha. As an evacuant I do not think Calomel was of much service. The milder kind of evacuants, and particularly Castor Oil, appeared to succeed better. In the cure of the Walcheren dysen-

tery evacuants freely given, and opiates to allay irritation and pain were means the most successful. Nitrous Acid, and Wine, were occasionally used, butnever with much advantage.

In those cases which would not yield to art the belly was reduced to more than half its natural bulk in consequence of the intestines sinking into the pelvis. The disease in general ended fatally in six, seven, or eight days, and towards its termination the evacuations were less frequent, but unchanged in their appearance.

In some cases small sloughs were evacuated a day or two before death. A few hours previous to dissolution there was commonly an abatement, and occasionally, a cessation of pain, and sometimes there was severe heart burn, hiccough, delirium, and convulsions.

I will now proceed to narrate three cases of

the Walcheren dysentery which will shew the general symptoms which attended the disease, and the appearances after death.

A Soldier was committed to my care for a Quotidian Intermittent attended with cough, difficult respiration, and pain of the breast. He was very young, and in a weak state. It is right to mention he had been under medical treatment for some time previous to my taking charge of him. The pulmonic symptoms were removed in about ten days, but the Intermittent continued for weeks, and it is a fact worthy of notice, which was accounted for after death, that he had at all times an insatiable thirst, and would have drank gallons of water had he been so permitted. In this state he was attacked with dysentery, and complained of severe and constant pain in the belly, and had almost innumerable evacuations which upon examination were found to consist of a thin bloody fluid and

several small substances of a brown colour which had the appearance of membrane in a state of disease. The pulse was small and quick, the tongue brown and furred. He died in seven days, and to the last, complained of thirst, and three days before death, of pain in the stomach. The following was found on dissection. The stomach was enlarged and distended with flatus. Upon laying it open a number of small ulcers appeared on its internal surface; some were very small, others nearly the size of a sixpence, with a reddish surface, and to which was attached a black mucus. The villous coat of the stomach was completely corroded by these ulcers, and the whole of it was covered with dark and slimy matter. The liver was a little diseased, and the gall bladder filled with black bile. The spleen was enlarged. The colon, and rectum presented striking proofs of disease. The internal surface of them exhibited a granulated appearance of a very consider-

able extent and thickness. It is not easy to describe it by words. The granulations were of a dark red colour, and some parts of the colon, and rectum were ulcerated, and gangrenous.

A Soldier was admitted into the Hospital for dysentery. The symptoms were frequent evacuations of a thin and bloody nature, severe pain in the belly, tenesmus, the pulse soft and feeble, the tongue white, and a great degree of thirst. To these irritability of the stomach succeeded. In this case saline purgatives, Calomel, Rhubarb, Starch glysters, Opiates, Nitrous Acid, Wine, and Brandy were ineffectually employed. He expired in a few days, and for some time several small sloughs were mixed with the alvine discharge. The liver was a little enlarged, of a light yellow and brown colour, and covered with a thin layer of coagulable lymph. The gall bladder was small

and filled with green and viscid bile. The spleen was very soft. The peritonœal coat of the viscera was of a dark colour from ramification of vessels. The whole of the colon, and rectum were thickened, contracted, and diseased. The internal surface of them was black and ulcerated, and a part of the rectum gangrenous. Several spots of coagulable lymph were found on the surface of the heart and its auricles, having a striped appearance. The right auricle was distended with coagulum. Those parts of the heart and its vessels which usually appear white, were of a beautiful light yellow colour.

In a third case of the Walcheren dysentery which had succeeded Intermittent fever some parts of the colon, and rectum were black and gangrenous, and others in a state of ulceration and granulation. The liver was dark and dense. The spleen was very soft, and weighed nearly two pounds.

In the dissection of those who died of the Walcheren dysentery the intestines named colon, and rectum, were always found in a very diseased state, and in a few instances the disease extended upwards as far as the ileum. The internal surface of the colon, and rectum was in some cases ulcerated, in others there were high and extensive granulations of a dark red colour, not differing materially from the appearances which confluent small pox presents, in many it was in a gangrenous and sloughing state, and frequently ulcerations, granulations, and gangrene existed at the same time. In a few cases there was ulceration of the villous coat of the stomach. The liver and spleen were in general diseased, and the omentum and mesentery exhibited numerous red and turgid vessels The body was always greatly emaciated.

That in the Walcheren patients the intestines were loaded with vitiated matter, which had

remained there a considerable time, is a fact as generally known as it is admitted. This matter, vitiated and acrid as it certainly was, being in contact with the villous coat of the intestines would in some instances inflame, and ulcerate it in several parts, and when this matter was either partly, or altogether removed, this inflammation, and ulceration would be sensibly felt. I have shewn that in those who died of dysentery the internal surface of the colon, and rectum was found in a state of ulceration, that it was covered with dark red, and sometimes sloughy granulations of a very considerable thickness, and that occasionally some parts of it were gangrenous. From these facts my opinion is that dysentery was produced by the circumstance of the intestines having been long distended with vitiated and acrid fœces, which had successively given rise to inflammation, ulceration, granulation, and gangrene. In those cases where ulceration only was discovered in

the intestines I believe that the ulceration had been so extensive as to destroy life very speedily, that where granulations were found, which was often indeed, some of the ulcers had been at first very slight, had gradually become larger, and gone on to the granulating process, and lastly that in those instances where a cessation of pain preceded death it was in consequence of gangrene, or the disposition to it, having taken place.

CHAPTER, XIII.

Of the Walcheren Diarrhœa.

I HAVE thought it right to assign a distinct chapter to the subject of the Walcheren diarrhœa although the instances of it were very few and I believe always fatal.

It is necessary to mention that by the term Walcheren diarrhœa I do not mean the diarrhœa which very frequently existed in the Continued and Intermittent fevers, but a diarrhœa of a different kind, by some improperly called chronic, which was a disease of itself, and appeared to be the cause of death. It always attacked patients of very weak and relaxed habits.

The symptoms were frequent evacuations of fœcal matter, which when examined had an unpleasant smell; they had a natural appearance, but were scanty in quantity, and occasionally streaked with blood. There was but little abdominal pain, or uneasiness. The pulse was feeble, the tongue white, and the skin moist. There was not the slightest degree of fever. The patient was in general greatly emaciated.

Death took place in the Walcheren diarrhœa in a few days, and for many hours previous to it the patient expressed no feeling of pain, was perfectly sensible, and lay sleeping.

The following is a curious case of this disease.

A Soldier who had recovered from the Walcheren fever was attacked with violent diarrhœa. His evacuations were numerous, small in quantity, and tinged with blood. He had no

pain, and died in eight days. The whole of the internal surface of the colon presented granulations, and was covered with innumerable ecchymoses wich gave it a highly inflamed appearance. There was no ulceration, or thickening of the coats of the intestines. The spleen was enlarged, discoloured, and had a large abscess in that part of it which adheres to the diaphragm. The cavity of the abdomen contained two pints of lymph.

In the dissection of those soldiers who fell victims to what I have designated the Walcheren diarrhœa the liver and spleen were generally found diseased, and the internal surface of the intestines exhibited numerous points of a beautiful vermillion colour. The villous coat was commonly a little thickened.

The opinion I have formed of this diarrhœa is, that it was the precursor of dysentery. I

have said it attacked very weak and relaxed subjects, and that on dissection numerous points of a vermillion colour were found on the internal surface of the intestines. I consider these points to be indisputable marks of inflammation, of that inflammation produced by vitiated and acrid fœces, and which was the first step towards dysentery. Had the subjects of the Walcheren diarrhœa lived long enough I have no doubt but it would have degenerated into dysentery, but being in a very weakly state life was closed before this could take place. And I ask if it is not exceedingly likely that, in general, this diarrhœa did precede dysentery, but being without much uneasiness it failed to attract observation until severe pain, fever, and a discharge of bloody mucus indicated the existence of the latter disease, and made the preceding one be overlooked.

I have now concluded my observations on the

Walcheren diseases, and cheerfully commit them to the world for censure, or for praise. Those readers who are inclined to cavil at what I have written, who are anxious to detect my errors, who are proud to find fault, and are enraptured with defect will probably accuse me of having neglected to mention some important matters connected with my subject, of having been very diffuse, and of frequently repeating myself when repetition was unnecessary. If there be any such, and I doubt not but there will, they ought to remember that no human work was ever perfect, that if I have failed in some things I have succeeded in others, that I have been writing of diseases on which no man has written before me; that mine has not been an hackneyed and beaten path but one as directly opposite as possible, and that under such peculiar circumstances it was absolutely incumbent on me, and my duty to aim at perspicuity, al-

though in the attempt I might appear to be tedious and prolix.

THE END.

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